SATURDAY, AUGUST 22, 1874.

ORIGINAL COMMUNICATIONS.

AN INVESTIGATION INTO THE ACTION OF VERATRUM VIRIDE UPON THE CIRCULATION.

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ASSISTED BY JOS. BERENS, M.D.*

PART I.—VERATROIDIA.

Section A.—General Action of the Circulation.

AS is well known, some years since I published a physiological paper upon the alkaloids of veratrum viride. This paper, although correct so far as it went, was by no means complete in regard to the therapeutically most important portion of the subject. This lack of completeness arose from two sources. In the first place, the study was my first attempt at this sort of original work, and in the second place, my supply of the alkaloids was exhausted before the investigation was complete. Ever since, I have wished to carry out the work commenced, but have been unable to obtain more of the alkaloids until recently. As great stress has been laid in a certain quarter upon the fact that the alkaloids which were previously employed were not chemically pure, and as, in some of the experiments hereafter detailed, the poison used certainly was impure, a few words of introduction seem necessary. The researches of Bullock and of Mitchell appear to have positively determined that there are two alkaloids in veratrum viride, and only two. It is a comparatively easy task to separate these alkaloids from each other, but a most difficult if not an impossible one to free completely the separated alkaloids from adherent resin. This resin being inert is a chemical but *not a physiological* impurity, and therefore its presence in greater or less amount only affects the results of experiments in regard to the dose. The alkaloid containing twenty per cent. of resin must, of course, be given in doses twenty per cent. larger than the pure alkaloid, but, this being done, the results are identical. These facts rest upon experimental as well as chemical grounds, the purest alkaloid obtainable having produced, when given in proportionate dose, exactly the same symptoms as were caused by impure specimens.

In my first investigation the following experiments were made to test the action of veratroidia upon the circulation in the uninjured animal.

Experiment I.—(*Exp.* 18.)—A moderate-sized mongrel dog.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
		108	120–150	Pressure sometimes as low as 110, and as high as 160.
0	gr. 1			Into peritoneal cavity.
5 m.		106	55–80	Pressure sometimes rises to 95.
7 "				Vomiting. A convulsion.
10 m.				Dog apparently dead.
12 "		50	110–150	Several howling, laborious breaths, then quiet. The individual beats of heart very powerful, driving mercury through 40 m.
15 "		140	175–195	The breathing for the last five minutes has consisted of a few paroxysms of half a dozen convulsive respiratory efforts. The pressure has been as high as 210.
16 "		0	0	The mercury fell in the tube almost instantly. Dog dead. The autopsy showed brain and medulla congested with dark blood; right side of heart enormously congested and swollen; left side nearly normal; venous system everywhere gorged; blood very dark.

Experiment II.—(*Exp.* 19.)—Terrier dog.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
		112	120–160	
0	gr. ½			Hypodermically.
5 m.		112	120–160	
10 "		104	75–90	
15 "		84	75–90	
17 "				Dog vomiting violently.
20 "		68	90–105	Dog still vomiting. No purging or convulsions, but a slight twitching of muscles.
30 "		76	90–105	Some convulsive movements.
35 "			110–120	Dog quiet; not vomiting (hence, probably, arterial pressure increased).
40 "		96	70–90	Immediately after a severe paroxysm of vomiting.
40½ "			90–105	
40¾ "			115–120	Pressure rising sometimes to 125.
41 "			90–105	Directly after a violent opisthotonic convulsion, which has just ceased.
45 "		140	115–120	Dog quiet.
50 "		140	100–115	Rarely rising to 130.
53 "				Dog was unfastened, and pushed off the table; he fell relaxed and stone-like, but in a little while strove to get up, and, struggling violently, slowly progressed forward, scarcely lifting his belly off the ground. Upon being seized a few moments after, he had a violent convulsion, which was quickly followed by total unconsciousness; touching the eyeball producing no effect. Breathing had apparently ceased; pulse very feeble. After lying quiet for some time, he slowly returned to consciousness.
65 "		104	155–175	Dog breathing well again.
80 "		104	95–105	Dog has not moved for fifteen minutes.
	gr. ½			Injected into peritoneum. Dog showing no signs of life when struck or hit.
85 "			80–90	Going up to 100.
90 "				Vomiting.
95 "		108	105–115	
110 "		104	90–100	Dog now untied, and allowed to lie undisturbed. He died in a few minutes.

In commenting upon these experiments I used the following language: "The action of veratroidia upon the heart seems more difficult of interpretation. In Experiment 18 there was a marked depression in the force and rapidity of the blood-movement, lasting for ten minutes. At the end of this time death by asphyxia was rapidly produced, and the circulation underwent a curious change. The pulse, in a moment, was reduced to a mini-

* Dr. Wood took part in all experiments, and is responsible for their accuracy, as well as for the plan of the investigation and all deductions made. Dr. Berens did a full share of the experimental work.

mum in rapidity, but the individual beat became endowed with four times its normal force; the pulse then rapidly rose to one hundred and forty,—twenty beats beyond its pristine number; the individual heart-contractions becoming much more normal, but the arterial pressure rising far above what it had been previous to the administration of the drug. Then very rapidly the mercury fell, and in a moment the heart was stopped, and all was over.

"I think the most probable explanation of this curious phenomenon is to be looked for in the sudden cessation of the respiration, and the consequent rapid production of asphyxia. The increase in the force and rapidity of the heart's action was most probably due to the overpowering of the specific action of the veratroidia by that of the carbonized blood. In his admirable 'Physiological, Pathological, and Anatomical Researches' (p. 33), Dr. Reid has a paper on the 'Phenomena of Asphyxia,' from which the following is extracted:

"'When the animal was breathing freely through the tube in the trachea, was quiescent, and when the blood was fully arterialized, the range of level in the mercury in the tube seldom exceeded half an inch, sometimes not so much. When the stopcock was shut, no change took place in the range of the mercury during the first half-minute; generally before the end of the first minute the animal had begun to struggle, and the range greatly increased, rising during each attempt at expiration, and during the struggling of the animal. In some experiments the range of mercury amounted to about nine inches, and in one experiment to ten inches.

"'In a third experiment, the pulse was 100 before the stopcock was turned; at the end of one minute the blood was getting dark, the animal was beginning to struggle, and the pulse was 120. During the second minute the animal struggled violently, and the pulse could not be reckoned. At the end of two and a half minutes the animal ceased to struggle, the respirations were few and heaving, and the pulse was 78.'

"In Experiment 19, the primary period of depression ended in a gradual increase in the frequency and force of the pulse, which had risen to 140 instead of 112 in a minute,—the number before its administration,—but had not quite regained the force which it had had previous to the use of the drug, when a period of collapse and apparent death came on; after reaction from this, however, the circulation more than regained the power which it had at first. A further dose of the veratroidia was followed by the same depression and subsequent rebound of the circulation. The indications do not, in this case, point so clearly to the accumulating carbonic acid as the cause of the secondary arterial excitement, but I cannot help believing it has something to do with the latter."

In the present investigation, the first experiments with veratroidia were directed to discovering whether the effects obtained in the study of Mr. Bullock's alkaloid are constant. These experiments are as follows:

Experiment III.—Small stout dog.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
		140	110–115	Respiratory efforts frequent and deep, during which a maximum and minimum pressure was attained of 100–125.
0	gr. 1-40			Injected into femoral vein.
10 sec.			10	
30 "			0	
45 "				Pressure rising; the respiration profoundly affected; vomiting.
1 m.			140	
1¼ "			165	Respiration ceased; the pulse very weak and quivering; blood very black.
1¾ "				Respiration resumed.
2 "			10	
3 "		114		Pulse very weak. *Clot.*
6 "		198	200	Pressure has been up to 210. *Clot.*
7 "				
11 "			115–130	Pressure sometimes falling as low as 100, and rising to 145. The respiratory efforts three in a minute, and shallow and gasping in character.
12 "		100	90–110	Individual beat fifteen cent. Respirations but two to the minute.
21 "		84	80–85	Respirations but *one* to the minute.
21¾ "	gr. 1-40			Into femoral vein. The pressure fell instantly.
21¾ "			40	
22¼ "			85	
23¼ "			110–120	
26 "		165	95–100	Pressure rising to 115 and falling to 90. Respiration feeble and slow.
35 "	gr. 3-40			Heart instantly arrested. The organ was flabby; responded feebly to stimuli, and filled with black blood.

NOTE.—Some blood drawn from the femoral artery just previous to death was found exceedingly black and venous in character, but rapidly changed to a bright arterial hue after a few moments' exposure to the air.

Experiment IV.—Moderate-sized dog.

TIME.	DOSE.	PULSE.	PRESSURE.	TEMP.	REMARKS.
		150	115–125	103½°	Breathing regular. Pressure sometimes falling to 100, and during strong respiratory effort rises to 145.
0	gr. 1-20				Injected subcutaneously.
7 m.				102½°	Respiration begins to be affected.
17 "		60	50–75	102¼°	Individual beat 25 cent. Respirations deep; nine to the minute.
27 "		42	48–65	101¾°	
28 "			25–40	100¾°	Efforts at vomiting.
30 "			105–135		Dog has just vomited.
30¼ "			125–150		
30½ "			130–160		Vomiting ceased.
31 "			90–115		Respiration almost ceased. Pressure has been lower.
32½ "					Respirations irregular; four to the minute.
34 "		36	60–95	100¼°	Clot. The tube inserted in vessel on opposite side.
38½ "				99¾°	
43 "			50–60	99½°	There is violent purging. Stools liquid and greenish. Arterial blood very black, and clots easily.
53 "		50	35 75	98½°	Breathing very slow. Pulse irregular. During respiratory effort pulse and pressure both rise, falling again in the respiratory interval.
58 "	gr. 1-20				
62 "				97°	Blood very dark. Injection has had little apparent effect.
63 "	gr. 3-20				In peritoneal cavity.

TIME.	DOSE.	PULSE.	PRESSURE.	TEMP.	REMARKS.
88 m.					No marked effect.
89 "	gr. 3-20				In peritoneal cavity.
91 "					Violent vomiting of greenish fluid. Breathing very rapid and irregular.
91½ "					Respirations slow and labored; dog struggling violently for breath. Blood drawn from femoral artery very black, but becomes bright red after exposure to air.
96 "					Dog dead. Heart large and flabby, but filled with dark blood. Alimentary canal much inflamed throughout.

Experiment V.—A very stout, large terrier.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
		120	110–120	
0	gr. 1-40			All or nearly all of this dose was lost in attempting to inject into the femoral vein.
5 m.				
9 "		120	115–122	
11½ "		144	117–123	
13 "			115–123	
16 "			120–125	
17½ "	gr. 1-40			Injected into femoral vein.
18½ "			10–15	Respiration exceedingly affected; very labored.
18¾ "			85–110	Vomiting freely.
19½ "			95–120	Respiration almost arrested.
20 "			135	Arterial blood perfectly black.
21 "			180	Deep respiration; paroxysms at very long intervals.
22 "			245	
23 "		18	160	Decided change in color of blood. Respiration becoming more frequent.
25¼ "			90–100	
26 "		54	70–90	
27 "			65–97	Respiration in paroxysms at long intervals. During intervals pressure falls to 60–70, but rises to 60–100 after inspiratory efforts.
30½ "			68–80	Cut one pneumogastric.
32 "			130	
32½ "			95–105	
34 "			90–100	
34½ "			80–87	
35 "			95–100	Respiration very weak.
35½ "			115–122	Cut remaining pneumogastric.
36 "			110–115	
37½ "			68–73	
52 "			40–43	Into femoral vein.
52½ "	gr. 1-40		35–40	
52¾ "			40–45	Respiration very labored.
54 "			65–70	Injected into femoral vein.
54½ "	gr. 1-40		75–80	
55 "			90–95	Efforts at vomiting.
59 "			95–100	Pulse very rapid. Arterial blood very black.
63 "				Vomiting of a large quantity of mucus of deep greenish tint—probably due to bile.

A careful study of these experiments will show their complete agreement with those of my previous study. In Experiment III., the blood-pressure, after the first injection into the vein, fell to zero in the course of thirty seconds, and in one and a quarter minutes had risen again to 165,—the original point having been 110; and similar phenomena were also witnessed after subsequent injections. In Experiment IV., the alkaloid was thrown not into a vein, but into the cellular tissue, and the succession of phenomena was therefore less rapid, and, accordingly, in closer accord with what occurred in the trials with Bullock's preparation. Seventeen minutes after the injection the pressure was about one-half what it was originally, whilst thirteen minutes later it was more than one-fifth greater than normal,—a fall of one-half, a rise of one-fifth.

In Experiment V., the alkaloid was thrown directly into the circulation, and in one and a half minutes the pressure, which had been 120, was down to 10, but in three minutes had risen to 245. It is very plain that the fall and rise not only take place much more quickly when the drug is thrown directly into the veins, but are also much exaggerated. This fact would seem to indicate that the primary fall is due to a direct action of the alkaloid upon the heart or its nerve-supply, whilst the secondary rise has its source in some indirect action of the poison. A reference to the record of Experiment III. or of Experiment V. will show that the alkaloid produces an intense disturbance of the respiration, and that the secondary rise of the arterial pressure was simultaneous with, and proportionate to, this disturbance. In my previous article the great probability that the rise was simply due to the excess of carbonic acid in the blood was fully shown, and the remarks thereon have already been quoted. In order to test absolutely the matter, the alkaloid was administered, and forcible artificial respiration was kept up. Under these circumstances, as will be seen from the following records, the secondary rise of the mercury in the manometer was altogether prevented, the arterial pressure being steadily depressed. If the bellows were kept quiet for an instant, however, and the animal left to its own unaided powers, the blood commenced to grow dark, and the pressure to rise, only to fall at once when the artificial respiration was again resorted to. In experiments hereafter detailed, these results were repeatedly confirmed; and, although at times other results seemed to be achieved, it was always found that a leak in the bellows or some other accident or circumstance had interfered with the efficiency of the artificial respiration. The experiments are as follows:

Experiment VI.—A stout dog of medium size.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
		100	100–110	Grain one-sixth of woorari injected into femoral vein, and artificial respiration practised.
0	gr. 1-40			Into femoral vein.
1-10 m.			15	
½ "		102	80	Slight vomiting, efforts interfering somewhat with artificial respiration.
2¼ "			100–110	
3 "			80–100	
8 "			30–45	Individual beat 13 cent. Arterial blood bright scarlet.
14 "		52		
17 "		60	30–45	

Experiment VII.—A stout young pup.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
0 m.	gr. 1-40	130	90–100	Into femoral vein. Artificial respiration.
1-10 "				Pressure was falling rapidly, when the blood clotted in the tube.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
3 m.			80–85	
6 "			75–80	
15 "			45–50	
16 "			50	
23 "			40–45	

Experiment VIII.—A moderate-sized dog.

TIME.	DOSE.	PULSE.	PRESSURE.	REMARKS.
		90	115–125	Artificial respiration applied very actively.
0 m.	gr. 1-50		130–135	Injected into the femoral vein.
½ "			65–75	
1 "		44	60–75	
2 "			80–95	
4 "		60	80–105	
5 "			90–110	
6 "		60	95–110	
8 "		93	90–110	
10 "		90	85–95	
11½ "	gr. 1-40			Into femoral vein.
11¾ "				After injection, pressure fell at once to 70, but a clot prevented further observation of the fall.
18 "			50–58	
19 "		88	50–58	

As a contrast to these experiments, and as showing the influence an excess of carbonic acid in the blood has over the depression of the arterial pressure caused by veratroidia, the following experiment is recorded. Although thus reported separately, for obvious reasons, it was in truth a continuation of Experiment VII.

Experiment IX.—A stout young pup.

TIME.	DOSE.	PRESSURE.	REMARKS.
0 m.	gr. 1-40		Into femoral vein.
23 "		40–45	Cut pneumogastrics.
52 "	gr. 1-40	50–60	Into femoral vein. Artificial respiration suspended.
55 "		135	
56 "		145–170	
56½ "		210	Dog making violent respiratory efforts.
61 "		130–135	Blood black. Artificial respiration resumed.
61¼ "		55–60	

(To be continued.)

A CASE OF CARIES (?) OF THE VERTEBRÆ COINCIDENT WITH CANCER OF THE VISCERA.

BY H. C. HAND, M.D.

J. B., a native of Sweden, single, temperate, and a laborer, was attacked in the autumn of 1873 with pain in the region of the left hip. The pain increased in severity, and when he was first seen (Feb. 2, 1874) it was accompanied by considerable difficulty in locomotion. There was some tenderness on pressure in the groin, and about the same when pressure was applied over the sciatic nerve on the level of the great trochanter. No pain was excited by motion of the hip-joint, nor by driving the head of the femur against the acetabulum by sharp blows on the knee or heel. Soon he began to refer the pain to his knee, especially at one point over the inner condyle, and with this he suffered almost as much as with the pain nearer the trunk. The left leg and thigh became daily more and more flexed, until at the time of his death the heel almost rested against the nates. During the last month of his life the right hip and thigh also became painful and flexed, but in a less degree than the left. He rarely complained of pain in his back, except when he lay in an uncomfortable position or when he was moved. On pressure there was some tenderness over the lower dorsal and the lumbar vertebræ, but this tenderness was not greater in degree than that found on each side of the spine over the lumbar muscles, and upon the ribs as high as the angle of the scapula. There was no projection of any of the spinous processes. He coughed a little, and occasionally raised some clots of blood.

About the 1st of February he noticed a small tumor under and in contact with the malar bone. This steadily increased in size until the time of his death, when it was as large as a walnut. It never gave him much pain. His appetite was always very poor; bowels constipated. He lost flesh and strength day by day, his skin became shrunken and inelastic, his complexion sallow and cachectic, and he died June 5, 1874. It should be observed that there was no bronzing nor other dark discoloration of the skin; its color was typically that which ordinarily accompanies the cancerous cachexia.

An *autopsy* was made thirty-six hours after death, by Dr. C. E. Smith and myself. The body was much emaciated. Both legs were extended and equal in length. As he lay on his back, the pelvis was inclined to the left side; it was easily straightened or even inclined to the other side, but resumed its original position by a hinge-like movement in the spine as soon as left free. On opening the cavity of the abdomen, the first thing attracting attention was the prominence of the lumbar vertebræ; in fact, this prominence was easily recognized during life through the thin abdominal wall. The point at which so free motion existed between the upper and lower halves of the body was at the second lumbar vertebra. The bony structure of the body of this bone had almost entirely disappeared, leaving some spiculæ only, the remainder of the space for the body being occupied, but not extended, by a bloody puruloid liquid. The bodies of all the other lumbar vertebræ were softened to such an extent that a scalpel could be readily thrust into them, causing the escape of a few drops of the bloody puruloid liquid mentioned above. The lower dorsal vertebræ partook of the same changes in a less degree. The lower lumbar vertebræ were very prominent, as before noted; so much so that the sacrum receded from them at almost a right angle. The breadth of the bodies of these vertebræ also seemed increased, being at least three inches, and probably more.

Some of the mesenteric glands were enlarged, but not greatly, and in two or three a few drops of pus had formed.

The kidneys were flabby and somewhat enlarged. Dispersed throughout their substance were numerous nodules, varying in size from a pea to a hazel-nut. These were round, well defined, more resisting than

the surrounding tissue, and on section showed a whitish and uniform structure.

The supra-renal capsules were each large and firm. The left weighed one ounce, the right two ounces. The whole interior of these organs seemed to have been replaced by a new formation of about the same consistence as the nodules in the kidneys. The color of this formation was grayish-white, its gross appearance slightly granular.

The liver was congested and dark. Round nodules, from the size of a white mustard-seed to a pea, were scattered throughout its tissue.

The spleen was double its average size. Its interior was like currant-jelly. No adventitious deposits were found in it.

The right pleural cavity contained about one quart of serum, by which, and adhesions at upper part, the lung was much compressed. No miliary tubercles and no cavities were found in it, but several nodules resembling in size, shape, color, and consistence those in the kidneys. One the size of a pea was found in the upper lobe of left lung; otherwise this lung appeared natural.

In attempting the removal of the tumor of the cheek, it was found to have involved the outer and anterior wall of the antrum. That part not blended with the bone was removed. Its size was about one inch by three-fourths of an inch in diameter. It was exceedingly hard and dense, and gave a creaking sound when cut. Its section was white, and exuded a little milky juice.

The microscopical characters of this cheek-tumor were—a fibrous stroma, cells of various shapes and sizes, the smaller ones containing one large nucleus, the larger ones several large nuclei; many of the smaller cells being elongated and spindle-shaped, more caudate; and finally, abundant free nuclei. Except the fibrous stroma, the new formation in the supra-renal capsules presented the same characters. The nodules in the kidneys had undergone degeneration to such an extent that the only microscopical appearances were multitudes of free granules and large many-shaped cells *filled* with granules. The same was also true of the nodules in the lung.

The above-named microscopical appearances were observed both by Dr. C. H. Boardman and myself, and, taken in connection with the general characters of the tumors, leave no doubt as to their cancerous nature.

The question of chief interest is that regarding the nature of the vertebral disease, whether it was a simple caries or a cancerous degeneration. Nothing but the comparative rarity of cancer, I think, would make us incline towards caries, and I believe that in regarding it as cancer we shall approach most nearly the truth.

The authors whom I have consulted in investigating the subject are either silent or eminently unsatisfactory. This little paragraph in Rindfleisch's "Pathological Histology" comes perhaps as near to the point as any: "A third, more rare, but so much the more characteristic form, is the diffuse carcinosis of the pelvic and adjacent vertebral bones, which presents itself clinically as an osteomalacia."

St. Paul, Minn., June 20, 1874.

TREATMENT OF CYSTIC GOITRE BY EVACUATION AND INJECTION OF THE SOLUTION OF THE PERCHLORIDE OF IRON.

BY J. EWING MEARS, M.D.,
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IN the London *Lancet* of May 11, 1872, Dr. Morell Mackenzie reported a number of cases of cystic bronchocele which he had treated with eminent success by tapping and injecting with the solution of the perchloride of iron. As stated in the article, the cysts, by this method of treatment, were converted into chronic abscesses, and it was only necessary to conduct these to a termination in order to effect the cure of the bronchocele. The operation is exceedingly simple, and is described as follows. The cyst is first emptied, the trocar being introduced at its most dependent point, through the canula, which is allowed to remain; a drachm or more (the quantity being determined by the size of the cyst) of the solution of the perchloride of iron is injected, and the opening of the canula closed by a piece of cork or wood, cut to the proper size. The solution of iron is permitted to remain in the cyst for three or four days, according to the degree of inflammation which it is thought necessary to produce. At the end of the prescribed time it is withdrawn, the canula, with the opening closed, being retained in position. Poultices of linseed meal are now applied over the cyst, and when suppuration is fully established the plug in the canula is removed, and free drainage is secured. The canula is not removed until the discharge is limited in amount and its consistence such as to permit its easy exit through the wound. The duration of treatment was reported to vary from three weeks to four months.

Having under my care, at the time of reading this article, a patient who was suffering from bronchocele, I determined to treat it according to the plan so successfully employed by Dr. Mackenzie. Although I was not able, as will be seen, to follow to the letter the instructions given, still the success was complete, and I feel it a duty to report the case which so entirely confirms the plan of Dr. Mackenzie. It gives to the surgeon a method of treatment in these cases, which is at once simple and devoid of danger.

The patient, a female, aged twenty-eight years, first noticed the tumor in the neck some twelve years ago. Its growth had been very slow, and for a period of four years it seemed to remain stationary. During the last year it had enlarged in size until it produced quite a deformity, and at times interfered with swallowing. It was, at the time of operation, the size of a large-sized hen's-egg, being developed rather more to the left of the median line of the neck. It was freely movable, rising and falling with the movements of the larynx and trachea in deglutition. Various plans of treatment had been employed to effect its removal. I had already tried simple tapping and the internal administration of sorbefacient remedies, with also local applications.

Owing to the failure to obtain the proper form of trocar and canula, I was unable to secure the latter in the cyst after I had tapped it, and injected a drachm of the solution of the perchloride of iron. The injection was, however, entirely retained by the closure of the puncture made by the small trocar. On the third day symptoms of inflammation appeared, and the neck was quite swollen; slight febrile movement was also present. On the fourth day I reopened the cyst, from which there escaped a small quantity of a viscid, tarry substance. Poultices were now applied, and in a few days suppuration was established, the pus escaping through the puncture, which was kept open by the use of the probe. In six weeks the discharge ceased and the opening closed, leaving but a slight swelling over the site of the tumor. Three months after, when I saw the patient, this swelling had disappeared, and a small cicatrix marked the position of the cyst.

Dr. Mackenzie has reported to the Clinical Society of London the results of this plan of treatment in sixty-eight cases of cystic goitre and nineteen of the fibro-cystic variety. Of the cystic form fifty-four were cured, eleven did not require treatment, and three were in subjects on whom, by reason of cardiac disease, it was thought undesirable to operate. The results in the fibro-cystic varieties were equally favorable. The advantages of this plan of treatment are set forth in several clearly-stated conclusions, at which Dr. M. had arrived from a study of his cases. The hæmostatic property of the iron is alluded to as of value in these cases. The frequent occurrence of sloughing after the injection of iodine renders this remedy dangerous, and it should therefore not be employed.

TRANSLATIONS.

DOES CHLORAL INTRODUCED INTO THE SYSTEM PRODUCE PHYSIOLOGICAL EFFECTS SIMILAR TO THOSE OF CHLOROFORM?—The *Gazette Méd. de Paris*, July 11, contains a discussion of this question by the editor apropos to certain proceedings in the Académie de Médecine. In the Academy, M. Colin, who had been advocating the use of intravenous injections of chloral, was asked whether this substance is or is not converted into chloroform in the blood, and, if the former is the case, what advantage can possibly accrue from the administration of chloroform by this means over inhalation as usually employed. To this question no reply was given, seeming to indicate that the action of the two substances in the economy was assumed by the Academicians present to be identical.

To this view Dr. Laborde, the writer of the article in the *Gazette*, takes vigorous exception. It is difficult, he thinks, to understand how any physiologist who has experimented with chloral can admit that this substance comports itself in the organism like chloroform. The phenomena which constitute the essential features of this difference are as follows. The period of excitement which is habitual in chloroform-inhalation does not exist after the administration of chloral. Experiment shows that this difference is not due to the method of administration, since chloroform injected into the veins or introduced into the stomach or rectum is followed by the same excitation as that which occurs subsequently to inhalation.

Chloral, as is known, produces sleep rapidly, while the anæsthesia which follows the sleep is not well marked or persistent until a further and sufficient dose has been administered. Once obtained, the anæsthesia, like the slumber, is quite prolonged, and both continue for an equal period. The persistence of sleep and anæsthesia may be more or less long, but they are always longer than the same effects when produced by chloroform.

On the other hand, with chloroform the anæsthetic effect dominates the properly hypnotic effect, and the first may be established and persist without the second having been produced. Every surgeon knows that there are certain patients in whom slumber can be produced by means of chloroform only with difficulty, while a sufficiently anæsthetic effect may be brought about without much trouble.

The sleep produced by chloroform is usually uneasy, disturbed, and full of dreams, while that brought about by chloral is calm and peaceful.

What is most characteristic, however, in the differences between the respective actions of chloral and chloroform is, on the one hand, the mode of awakening, and on the other the consecutive phenomena. The animal or man who has been under the effect of chloral awakes as if from a natural slumber. It is hardly necessary to say that this is far from being the case in slumber or anæsthesia produced by chloroform.

Although a certain proportion of chloral introduced into the blood may be converted into chloroform, yet the fact that in injections, etc., of chloral, the breath, the blood, etc., smell of chloral and not of chloroform, shows that much of this substance remains unchanged. M. Laborde does not believe in the intravenous injection of chloral, which, if introduced in concentrated doses, leads, he thinks, to local trouble, and if introduced in diluted solutions, exposes the patient to greater danger from the necessarily repeated operations.

A. V. H.

RENAL CONGESTION AND APOPLEXY; THEIR RELATIONS WITH CEREBRAL HEMORRHAGE. — Dr. Aug. Ollivier, in the *Archives Générales* for February, 1874, communicates a series of observations on this subject, including, 1, hospital cases; 2, physiological experiments. Under the first head Dr. O. gives careful notes of four cases of cerebral apoplexy, with autopsies. Under the second division he details a series of experiments practised upon rabbits, including irritations and incisions in the floor of the fourth ventricle, various parts of the hemispheres, the origin of the right acoustic nerve, etc.

The object of these experiments was to reproduce, as far as possible, the conditions found in hemorrhage into various parts of the brain. The results of the physiological research coincided with the clinical observations, and Dr. O. remarks that according to these facts albuminuria may be observed not only in hemorrhage of the pons, but also in hemorrhage into other parts of the encephalon. Dr. Ollivier concludes that albuminuria of cerebral origin is more frequent than up to this time has been supposed. In the present state of science it is impossible to fix with precision from the existence of this symptom the seat of a hemorrhagic clot, while in a case where the signs of a lesion of the pons are wanting in an apoplectic, one may say that the presence of albumen in the urine indicates either a clot at the base of the encephalon or an extensive hemorrhage compromising this base. In either case it constitutes a prognostic sign of great gravity.

A. V. H.

PROGRESSIVE PERNICIOUS ANÆMIA.—Under this title Prof. H. Immermann describes (*Deutsches Archiv für Klin. Med.*, 13ten Bd. 3tes Heft, 1874) three cases of a peculiar affection first alluded to by Biermer in 1872. Prof. I.'s cases are given at length and with most careful details. From the remarks he makes on the affection we extract the following conclusions:

1. There is a peculiar form of a high grade of anæmia which is distinguished by a progressively pernicious course, and appears almost invariably to terminate fatally.

2. This affection is to be distinguished from chlorosis, leucæmia, and other pathological processes as a peculiar form of disease, to denote which the name given by Biermer appears most convenient.

3. The etiology of this disease is obscure, since although we know certain aiding and abetting causes, we do not understand the essential (perhaps specific?) one; the geographical distribution of the affection displays interesting variations.

4. The peculiar symptoms of the disease during life, as well as the anatomical changes observed subsequently, indicate it generally as the result of blood-alterations, which the essential and primary disturbance in this affection establishes. The pathogenesis, however, of this excessive anæmia is not clear, since it may be due either to a diminished formation of the constituents of the blood or their rapid destruction, one or the other of which would lead to a similar result.

A. V. H.

THERAPEUTIC NOTES.

CURE OF IN-GROWING TOE-NAIL.—Dr. Ozanam (*L'Abeille Méd.*, July 6) regards the surgical operation at present commonly resorted to for the relief of this affection as needlessly cruel. The tearing out of the nail, or portions of it, leaves the toe in a tender condition for a long time, sometimes permanently. The plan which Dr. O. suggests as a substitute is as follows. A nick is made in the centre of the edge of the nail, extending in to its attachment. Then the upper surface of the nail is scraped along the middle line until it is thinned nearly down to the quick. A small piece of sheet-rubber is afterwards inserted on either side of the nail with the aid of a spatula, so as to form a sort of gutter around the edge, and to separate it from the adjoining flesh.

Dr. O. lays great stress upon this part of the treatment, and in particular upon the employment of rubber. Lead, he remarks, is too hard, charpie too soft and yielding, while the elasticity of the rubber on the one hand and its comparative softness on the other serve to keep up a constant but gentle pressure on the inflamed tissues without giving undue pain. Thus, with the elastic pressing up the outer edges of the nail and the thinness of its centre allowing a certain amount of yielding, it gradually becomes flatter, and its edges cease pressing upon the adjoining flesh. Should fungous granulations exist about the in-growing edges of the nail, it will be proper to apply some alterant, and the best for this purpose is powdered nitrate of lead, which reduces the fungosities and rapidly arrests suppuration. After the condition of the nail is once remedied, it is necessary to keep the central portion scraped thin for some months, until it becomes flatter and assumes a more normal form.

MERCURIAL INUNCTIONS IN SYPHILIS.—M. Panas (*Jour. de Méd. et Chirurgie prat.*) remarks that the sole objection to the use of mercury in this manner is the exposure to stomatitis and local irritative eruptions of the skin. To prevent the former, M. Panas recommends the use of astringent dentifrice powders from the beginning of the treatment, with watchful care of the teeth. One or two vapor-baths should also be administered to the patient daily. The use of tobacco should be discontinued as far as possible. It is principally in the graver forms of the disease that this treatment is found applicable,—when the nervous system and bones have been attacked. In these cases the most unhoped-for success is occasionally obtained. In new-born syphilitic children mercurial frictions should be used exclusively. M. Panas makes use of the ordinary mercurial ointment, to the amount of one to two drachms daily. The frictions are made in the evening before retiring, and should be continued for five minutes or so, over a limited portion of the body. They may be kept up for a month or six weeks, and may be recommenced if any new signs of the disease should appear.

TANNATE OF QUININE IN CHRONIC ALBUMINURIA.—Bouchardat (*L'Abeille Méd.*, July 6) says, "I am in the habit of employing the sulphate of quinine in chronic albuminuria according to the method of Dr. Devouves, and occasionally with unhoped-for success. The dose I employ is eight grains, in a cup of strong coffee, three times a day. This is continued for six days, and at the end of that time scammony or some similar purgative is administered. After one or two days of rest the patient is again placed on the use of quinine; and I have frequently continued this treatment for more than a year. The food of course should, during this treatment, be highly nutritious. Lately I have been substituting the tannate of quinine for the sulphate, in doses of ten to twenty grains, three times in twenty-four hours, given in a similar manner. The digestive apparatus supports the tannate better than the sulphate."

INJECTION OF CHLORAL INTO THE TRACHEA.—At a recent meeting of the Société de Biologie, M. de Bellesme suggested the introduction of chloral into the system by this means in cases where the circulatory and absorbent functions are almost in abeyance, and where therefore subcutaneous or intravenous injections cannot be practised with reasonable hope of success. The process simply consists in inserting the needle of a hypodermic syringe into the trachea, at a point about one finger's-breadth below the cricoid cartilage, and slowly injecting the solution, which can be used in much larger quantities than by the subcutaneous method. This method is likely to prove serviceable in tetanus, hydrophobia, and the algid stage of cholera.—*Le Progrès Médical*, May 23.

BLENNORRHAGIC EPIDIDYMITIS.—M. Richert never uses leeches to the root of the penis, and rejects absolutely collodion strips for the scrotum, which cannot be removed without giving great pain to the patient. He also rarely has recourse to puncture of the tunica vaginalis. Repose in bed, position of the scrotum, which should be well kept up by means of a rubber or linen support, and the application of resolvent compresses, lead-water, or even cold water alone, serve to effect a cure.

ANTISPASMODIC PILLS.—

℞ Pulv. assafœtidæ,
Pulv. camphoræ, āā ʒvj;
Ext. belladonnæ, ℈ii;
Pulv. opii, ℈i;
Syrupi, q. s.—M.

Ft. in pil. No. clxxx.

One to be taken the first day, two the second, and so on until six are taken daily, or two three times a day. Useful in hysterical and spasmodic nervous affections, in connection with bromide of potassium in doses of ten to fifteen grains.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, AUGUST 22, 1874.

EDITORIAL.

AN INTERNATIONAL CODEX.

A REVIEWER of the United States Pharmacopœia, in the *British and Foreign Medico-Chirurgical Review* for January, 1874, made a proposition which has not, according to our thinking, attracted the notice which it deserves. Indeed, the only response which it has elicited is an article from the pen of Dr. Charles H. Thomas, published in the *American Journal of Pharmacy*, and commented upon by the editor of that journal. The proposition made by our British confrère is that instead of England and the United States having each their own peculiar Pharmacopœia, an international one shall be prepared and be received as the sole standard authority in both countries. The advantages to be derived from this fusion are very obvious. Any measure which tends to unite the two countries more closely together is indeed just so far advantageous to both; but, leaving out of sight such generalities, it is evident that much specific good would accrue from the proposed change. The literature of the two countries is to-day almost a common one, and is continually interfusing more and more completely; the intercourse by travel for pleasure and business is incessant and profuse; commercial relations are daily increasing in strength and number. Without occupying more space with details, these considerations or hints are sufficient to show the importance of the proposed unification, and it is only necessary to say a few words in regard to the present disunity.

This is the more imperative since no less an authority than Prof. Maisch has expressed an opinion so worded as to give the impression that the two Pharmacopœias are practically identical. The mere fact that the fundamental weights and measures are different in the two Pharmacopœias, the United States codex using apothecaries' weight and wine measure, the British standard employing avoirdupois weight and imperial measure, is sufficient to prove the diversity of the two. Taking, however, Prof. Maisch's own tables, we find that the tincture of aconite root is more than, and the tinctures of hyoscyamus, of nux vomica, and of cantharides are nearly, three times as strong in the United States as in the British Pharmacopœia. Surely, without occupying more space, these few data are sufficient to show the differences between the two standards; any points of agreement only render the assimilation of the two Pharmacopœias more easy.

The chief intrinsic obstacle to the unifying of the two standards is the diverse systems of weights and measures. This difficulty is readily met by banishing weights and measures altogether from the Pharmacopœia, and using in the formulæ "parts by weight." Indeed, at the late convention for the revision of the United States Pharmacopœia, the acting committee were directed so to prepare the formulæ in the edition of our national standard just published; but the autocratic gentlemen who were intrusted with the behests of the convention have deemed fit to disregard entirely the wishes and directions of those who appointed them; so that the Pharmacopœia appears in the old lumbering style.

The chief practical difficulty in effecting the desired unification is to be found in getting the machinery at work. Fortunately, at the late convention the revising committee was made perpetual, so that it can at any time be got together if an emergency should arise. This committee is, however, so conservative in its composition that no originating movement is to be expected from it: indeed, if it should heartily respond to a summons, it would do more than seems at present probable. The surest and most practicable method of bringing about the desired change would be for the English authorities to make advances to this committee, which undoubtedly has the right to make whatever alterations in our standard it chooses, and could, if it would, enter actively upon the work of unification.

It is, however, not very probable that the Old World will see fit to come to the New: the natural but false pride of seniority is against it, so that

some other way of getting at the matter must be devised. The only plan which appears plausible is for the American Medical Association at their next meeting to appoint, with power to act, a committee, which shall attend the following meeting of the British Medical Association and ask for the selection of a committee of conference, the two committees to form a joint commission to arrange the details for the actual performance of the work. This plan seems to us perfectly practicable, provided that sufficient enthusiasm can be awakened and sufficient judgment be exercised to get the right men to agree to serve and to be appointed upon the first committees.

Some provision should also be made by which this committee should be completely *en rapport* with the existing committee upon the revision of our standard, and with the pharmaceutists of the country as represented in their national association.

CORRESPONDENCE.

MASSAGE EXTRAORDINARY! A CANINE SURGEON.

To the Editor of the Philadelphia Medical Times:

"A MOST remarkable instance of sagacity and animal reasoning took place yesterday afternoon at the residence of Whitfield Crawford, southeast corner of Seventh and Madison Streets, in this city. The principal actors in the case were a large dog belonging to Mr. Crawford, of the St. Bernard and Newfoundland breed, about two years old, who readily answers to the name of Carlo, and an ordinary domestic house-cat named 'Dick.' Between the two a strong feeling of friendship has always existed, each sharing the other's meals, and at night Dick, appreciating a soft bed, always found it by lying upon the top of his good-natured friend Carlo.

"On Wednesday last, on Mr. Crawford's return from market, he cut a piece of fresh meat into small pieces for Dick, but accidentally a needle and thread lying close by got mixed up with the meat. This poor Dick swallowed, or attempted to swallow, with the meat, but, not succeeding, the needle stuck in his throat, from which cause he of course suffered intensely, and in his sufferings he had the entire sympathies of his friend Carlo. Like a skilful physician, Carlo set about discovering the seat of the disease, which he found existed in Dick's neck.

"After an apparent consultation between the two, one as patient, the other as doctor, Carlo commenced operations by licking Dick's neck, the cat holding its head to one side to give Carlo a fair chance. The licking operation continued all day on Thursday, and at intervals through the night, Carlo occasionally pausing to press his tongue against the neck of his feline friend, as if trying to force some sharp-pointed instrument on the inside through the cat's neck to the outside. Yesterday, the same operation was continued by Carlo, until about four o'clock, when he was seen, with his whole body quivering with excitement, trying to catch something with his teeth, in which he succeeded, and giving a sudden jerk he pulled the needle through the hide of the cat, where it hung by the thread which still held it from the inside. The remainder of the operation was performed by a daughter of Mr. Crawford, who pulled the thread through and stuck the needle in the fence close by. The joy of Carlo knew no bounds, and, frisking his bushy tail about, and rubbing his shaggy sides against his master, he showed his full knowledge of what he had done by going to the cat and licking the wound in the neck, and then to the needle in the fence, which he examined very minutely, saying, in actions almost as plain as words, 'See what I did.' A son of Mr. Crawford coming home from his labor was met by Carlo, who turned and ran to where the needle was, and smelled it as if to explain the case more fully to the new-comer."

"Go to the ant, thou sluggard!" says the wise man, to inculcate a lesson of diligence. "Go to the dog, thou stupid!" we may say to the surgeon, who on a similar emergency to the one recorded above would undoubtedly have attempted to remove the foreign body by its avenue of entrance. Apart from the wonderful interest of the story as witnessing to the animal's sagacity or reasoning powers, it is a remarkable tribute to the surgical possibilities of manipulation,* pure and simple,—a veritable triumph for the movement-cure. It also indicates a mode of procedure for the extraction of a needle from the œsophagus which is entirely free from the danger of laceration so often produced by our blind and bungling and more violent efforts. I will simply add that I have taken pains to verify the relation, and have had the extreme pleasure of taking "Carlo's" paw and giving him the salutation of a confrère.

He is a huge specimen even of those large species, while the kitten is but half grown. The wound is directly in the median line, and at a point which in the human being would be about opposite the root of the tongue. As there is no evidence of escape of air from it, I conclude that it passed immediately over the epiglottis. It is a round hole, the twelfth of an inch in diameter, suppurating, but with very little inflammatory action around it. The skin is denuded of hair for about half an inch around. The kitten is evidently "a sick child." This is the third day since the operation, and the first day that it has been able to eat. It, however, "takes more notice," and I think a favorable prognosis may be ventured on.

Dr. "Carlo" appeared to agree with me in this view of the case. The extract is from the *Wilmington Commercial* of this evening.

Benjamin Lee.

1503 Spruce Street, Philadelphia, August 1, 1874.

Ether as an Anthelmintic.—Prof. Vegel announces a new application of this anæsthetic, namely, the destruction of tape-worms. The ether is enclosed in a gelatin capsule and swallowed. It soon becomes vaporized in the stomach, (?) and the worm, then becoming stupefied, is easily removed by any of the usual remedies, against which, when awake, it offers strong resistance!—*Journal of Applied Chemistry*, August, 1874.

* Carlo's tongue was simply his substitute for a hand.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 25, 1874.

THE PRESIDENT, DR. WM. PEPPER, in the chair.

DR. DE F. WILLARD presented the specimens from a case of *tubercular phthisis, with cavities, ulceration of intestines, and cystic kidneys*, from Mrs. A. B., æt. 68, admitted to the Presbyterian Hospital with a history of long-standing cough and diarrhœa. She was supposed, some years since, to have an ulcer of the stomach, but nothing further is known in regard to her history. On admission she had abundant expectoration and frequent, profuse, and offensive stools, and sank rapidly.

Autopsy, twelve hours after death.—Body in ice; amount of rigor mortis consequently uncertain.

Body emaciated.

Right lung.—Small cavity at apex. Lung filled throughout entire extent with patches of miliary tubercles. Softening taking place at several points.

Left lung.—Apex occupied by a large cavity, containing an ounce of purulent fluid. At numerous points in both upper and lower lobes small cavities were encountered, while scattered through all the substance of both these lobes were abundant tuberculous spots of the miliary variety. Both apices firmly adherent to parietal layer of pleura. Small excess of fluid in pleural cavity.

Stomach.—Near the pylorus was found an ulcer three-quarters of an inch in length by one-half of an inch in breadth, extending through the mucous membrane into the submucous tissue. The edges were steep, and the base occupied by a dark material resembling ecchymosed blood.

Intestines.—From the duodenum to the rectum there were from one hundred to one hundred and fifty ulcers, of size varying from that of a pin's head to an inch in diameter, and presenting various stages of ulceration and healing action. Some were apparently entirely healed, and in their cicatrization had so drawn upon the mucous membrane that it presented a peculiar appearance, with folds radiating from their centres in every direction, the membrane being puckered longitudinally, transversely, and obliquely.

These ulcers were most numerous in the lower portion of the ileum, the cæcum, and the ascending colon, but were quite abundant in every portion of both small and large intestines.

Liver.—No abscesses or other abnormal appearances.

Spleen.—Also normal.

Kidneys.—Right: hypertrophied, but normal relation preserved between the cortical and medullary portions. Left: densely indurated, and with the capsule so adherent to the surrounding fat that it was removed only with great difficulty.

The secretory substance was apparently entirely destroyed, and its place occupied by six or seven cysts, containing a thick, purulent fluid. One cyst, near the upper end, was filled with a peculiar, white, pasty, and nearly solid substance, which resembled plaster of Paris when prepared for making casts, but was unctuous and smooth. The nature of this has not yet been determined by the microscope, but will be at the first opportunity.

The PRESIDENT desired an expression from the members as to the state of the kidney.

Dr. JAMES TYSON remarked that he thought no opinion could be given with regard to changes in the structure of the chief portion of the kidney without microscopic examination. He was, however, quite familiar with cysts of the kind found in this kidney. The white, pasty matter is undoubtedly fat in a state of extreme comminution, in other words, *emulsified*, as would doubtless appear on microscopic examination. Its source has been most probably similar to the same matter found in ovarian tumors,—a fatty degeneration of proliferating cells.

The PRESIDENT alluded to the possibility of this cyst becoming a centre of infection, and thus the origin of a tuberculosis. He called attention also to the co-existence of gastric ulcer and intestinal ulceration, alluding to the rarity of its occurrence.

Dr. R. M. BERTOLET said he thought it evident this was not a dilatation-cyst, so called, as shown not only by the difference in its contents, but also in the absence of hydronephrosis,—dilatation of the pelvis at the expense of the medullary and cortical layers,—and other conditions usually attending the presence of such cysts; that the mere naked-eye appearances of the cheesy-like contents of the cyst offered no reliable criterion as to their tubercular nature; that without a microscopic examination it was even doubtful whether we had to deal with the cheesy degenerated masses. While he admitted the occurrence of such cheesy foci in the kidneys, whose presence, as well as those foci found in the lungs and other organs and glands of the body, might give rise to the eruption of true miliary tubercles, yet he thought that in other situations they did not usually present so pearly-white a lustre as this specimen.

Further, true tuberculosis of the kidney is not a very rare condition: the tubercles being disseminated beneath the capsule and the mucous membrane lining the pelvis. Great care should, however, be exercised in the discriminating use of the terms "tubercle" and "cheesy masses."

The kidney was referred to the Committee on Morbid Growths.

Dr. F. P. HENRY presented the *diseased supra-renal capsules* from a case of *Addison's disease*.

"T. G., æt. 23, sailor, born in Trieste, Austria, was admitted to the Episcopal Hospital January 4, 1874. The diagnosis on admission was epilepsy, based upon the fact that he had previously had attacks of that disease. He came under my care on May 1, and at that time was suffering from obstinate constipation, with nausea and occasional attacks of bilious vomiting. His pulse was extremely feeble, and he complained of a constant sense of weakness. The man was naturally of a very dark complexion, but there was a peculiar dinginess in the color of his skin which attracted my attention from the first, and which, taken in connection with the other symptoms, led me to suspect that I had to deal with a case of Addison's disease. At times there was great tenderness about the umbilical region, and on one occasion, after palpating the abdomen, the patient uttered loud cries for ten or fifteen minutes, and seemed in great agony. Nothing was found after death to explain this symptom. The urine was examined at different times, and only once presented a faint trace of albumen. The lungs were examined and declared sound, as they proved to be at the post-mortem.

"The prostration became gradually more marked, the pulse more feeble, and the stomach so irritable that the greater portion of the food was vomited. There was frequent vomiting of bile. During the last three days of life there was suppression of urine; Dr. Reed, the resident physician, passed a catheter, but no urine flowed through it. He then received a vapor-bath.

"The man died on June 22. The *autopsy* was made six hours after death. The intestines, both small and large, were found to be quite empty and decidedly contracted. The liver, stomach, and pancreas presented no gross appearances of disease. Spleen slightly enlarged and congested; lungs healthy. The kidneys and supra-renal capsules were removed together. The

latter organs are seen to be much enlarged. In the fresh state, on section, they were of a yellow color, and the opposite surfaces of the section poured out a quantity of thick, yellow matter resembling pus. Small nodules were found in both organs which presented the gross appearances of softening cheesy masses. Under the microscope, a section of one of the diseased glands presented a large quantity of granular matter, a few large oval cells containing oil-globules, and a number of small, irregularly-shaped cells, judged to be tubercle-corpuscles. No trace of the normal structure of the gland, such as its division into cortical and medullary substance, was observed in the specimen examined.

"I omitted to mention that a moderate quantity of adipose tissue was found in the abdominal walls and in the mesentery and great omentum, and that the bladder was empty."

The specimens were referred to the Committee on Morbid Growths.

The PRESIDENT said there were several points of clinical interest about this case, not the least of which was its connection with epilepsy. Recent investigations tend to associate some forms of this latter affection with lesions of the cervical sympathetic; and so, in well-marked cases of Addison's disease, the nature of many of the symptoms, as well as the results of some post-mortem examinations, shows that the abdominal sympathetic nerve is involved.

As to the connection between the melasma and the lesion of the supra-renal capsules, although not so close as Addison thought, at the same time examination shows that cases in which lesions of these bodies are not found are generally wanting in certain essential symptoms of the disease.

He had seen cases where the autopsy proved both the existence and absence of the lesion of the supra-renal capsules; but whenever the typical symptoms were present, such as disturbance of the heart, disposition to syncope, irritation of the stomach, tendency to vomiting, gastric tenderness and associated nervous phenomena, there was always marked caseous degeneration of the supra-renal capsules. In the last of these cases, also, critical examination of the solar plexus indicated disease. There was an increased amount of fibroid tissue in the ganglia, atrophy of the nerve-tubules, and excessive pigmentation of the ganglionic cells. Whether this latter was pathological or not, he could not positively aver, since even in health the pigmentation of these cells is often marked; but it is sufficient that lesions of the solar plexus have been found to exist, in some cases, where it has been carefully examined.

The PRESIDENT presented a *portion of lung from a case of pulmonary phthisis, with cavities (bronchiectatic?), hæmoptysis, death from asphyxia. Enormous clot of blood in a large cavity in right lower lobe.*

"Mrs. C., æt. years, with disposition to phthisis inherited from her mother, enjoyed excellent health until early part of 1873. Cough then set in, at first slight and dry, but later attended with abundant nummular purulent sputa. There was but moderate hectic, no hæmoptysis, but quite rapid emaciation and great prostration. Menstruation continued regular. She was under the care of various physicians, and first consulted me in April, 1874. There were then the physical signs of several small cavities along the anterior surface of the right lung, and of a larger one at the angle of the right scapula. In the left lung there were several points of softening in the upper lobe. The lungs were evidently emphysematous. There was extreme prostration, with marked dyspnœa.

"The treatment consisted chiefly of quinia and iodide of iron. On June 17 there occurred a profuse hæmoptysis. This was soon checked, but was followed by increased prostration and frightful dyspnœa, with greatly diminished cough and expectoration. The sputa became more and more free from blood, and for forty-eight hours before death were light chocolate-color. Respiratory sounds in the right lung were less clear, and associated with diffused moist and sonorous râles. Death occurred from asphyxia, on the 23d.

"At the post-mortem examination, there was marked emphysema of the lungs. In the left one there were several small cavities, varying in size from one-third to three-fourths of an inch, and deeply seated. These cavities communicated with bronchi, and were lined with smooth membrane. Elsewhere there were several nodules of caseous matter.

"On right side there were several small cavities in anterior part of lung, but the largest was on posterior surface, about level of angle of scapula. This vomica was fully three inches in diameter; it was very superficial, lying immediately beneath the somewhat thickened pleura, which was adherent to the costal pleura over this space. The cavity itself was limited by a distinct fibrous capsule, which could be dissected away from the surrounding lung-tissue as though it had been a heterogeneous cyst. Two bronchi of considerable size entered it. Its lining membrane was slightly roughened and granular; in places a faintly-marked trabecular appearance was visible. On lower wall of cavity there was a button-like prominence three-eighths of an inch in diameter and one-fourth of an inch high. Probably the hemorrhage had proceeded from this spot. The entire cavity was filled with a solid, dark clot of blood, weighing not less than half a pound. None of the other cavities contained blood. The bronchi were filled with thick muco-purulent matter. There were also scattered nodules of cheesy matter, some firm and partially fibroid, others disintegrating. These were usually circumscribed by a fibrous capsule. There was no diffused bronchiectasis. The heart was healthy. The abdominal organs were not examined."

Dr. JOHN H. PACKARD asked whether the small projections into the cavity were the source of the hemorrhage.

The PRESIDENT replied that he suspected this to be the case, but he did not know.

Dr. PACKARD referred to a specimen he had exhibited November 22, 1863, in which several similar cavities, or cysts as they were then called, were present. It was derived from a lady aged 52, who had been addicted to the immoderate use of ether. The cysts were of various sizes; the clinical history shed no light upon their origin or pathology.

Dr. J. EWING MEARS presented a small portion of an *epithelial tumor of the vagina*, which he had removed from a patient, and gave the following brief history of the case:

"She is aged 35 years, is a native of England, and has been married eight years. She has never been pregnant, and menstruation is in every respect normal.

"During the last fall and winter she was treated for ulceration of the womb, and was relieved. Her attention was first directed to the growth in the vagina by a hemorrhage which occurred in May last. Hemorrhages, more or less severe in character, have occurred from time to time, for the relief of which she has used styptic injections. Her general health has been good, and she has been able to perform her household duties without interruption.

"On making a digital examination, an irregular, soft mass could be distinctly felt occupying the posterior wall of the vagina. It was situated at a point corresponding to the junction of the upper with the middle third of the canal. The growth was sessile, the attachment measuring in its long diameter about an inch, and transversely about an inch and a half. Between the mass and the os uteri the wall of the vagina was

smooth and entirely free from any morbid growth. The os tincæ was normal, and free from disease.

"On introducing a Sims's speculum, the tumor could be easily examined, and presented to the eye the appearances described above.

"Slight hemorrhage followed the digital examination, and was readily checked.

"In removing the tumor, an attempt was made to accomplish this by means of the wire écraseur: owing to its soft, spongy character, this was not successful. A hooked periosteal elevator was then employed, with which and the finger-nail the entire mass was removed, leaving a smooth surface on a level with the vaginal wall. Hemorrhage was not copious. After thoroughly cleansing the vagina by injections of water, pledgets of lint saturated in Monsel's solution of iron were introduced, which effectually checked the hemorrhage; after the expiration of twenty-four hours these were removed, and the surface was found coated with scales formed by the styptic. In a few days these were removed, leaving a small healthy-looking raw surface.

"*Remarks.*—This case seems to possess one or two features which it may prove of interest to the Society to consider. At first, guided by the history of the case as presented, Dr. Mears was disposed to regard this growth as a papilloma of the vagina, and in view of this fact had prepared to encounter more difficulty from hemorrhage in effecting its removal. He was struck, therefore, by the comparatively slight amount of bleeding which occurred, and at once concluded that he had to deal with a pure epithelioma. Subsequent microscopic examination confirmed this conclusion, since there was an entire absence of the dendritic growths which characterize the papillary or villous form of cancer. Large quantities of variously-shaped nucleated cells, many containing granules and a delicate stroma, were all that could be seen in a number of portions which were examined.

"It has occurred to Dr. Mears that this possibly may be one of those instances in which there has been a transition of papilloma into epithelioma as noted by Rindfleisch. This belief is founded solely upon the statement as to the free hemorrhages which occurred in the early stages of the disease.

"The extremely rapid growth of the tumor is proven by the statement of the physician by whom the patient was treated for cervical endometritis, and who assures Dr. Mears that three months ago there was not a sign of any morbid growth in the vagina. Dr. Mears has, in studying this case, been interested in learning that, so far as the records of this Society furnish evidence, and also from the statements of several physicians and surgeons with extended experience in the treatment of the surgical diseases of the female generative organs, who have been interrogated, primary cancer of the vagina is not of very frequent occurrence. The volumes of Transactions of this Society published, now three in number, do not contain the report of a case. During the past two years two cases have been reported to the Society,—one by Dr. Parry, and one by Dr. Mears."

Dr. JOHN H. PACKARD read the history of a case of *tuberculous deposit at base of brain*, with obscure symptoms:

"A. Y., æt. two years, was first seen by me May 31. His parents had moved over from West Philadelphia about ten days before, and on his becoming indisposed they placed him under the care of a homœopath, who gave him something to check the diarrhœa, with dark and offensive stools, which was then his chief symptom. The child continuing to droop and to show an increasing tendency to drowsiness, they sent over for Dr. M. B. Musser, their former attendant, who advised them to send for me.

"During my attendance, the child's symptoms were chiefly stupor, with occasional accessions of jerking, affecting more especially the right arm and leg. The mother said she noticed some strabismus, but could not, of course, tell which eye was most affected. The thumbs were not drawn in. The child took scarcely any food, but did not vomit. The bowels were inactive unless medicine was given. The pulse was from 90 to 93 in the minute, throughout, except on the last day, the sixth of my attendance, when it grew much more rapid and feeble, and the temperature seemed normal to the hand; there was occasionally a marked degree of dryness and harshness of the skin.

"A few days before death it became evident that vision was gone; the eyes were normal in appearance, but the pupils were unaffected by light.

"Death took place quietly on the 6th of June.

"*Autopsy*, made by Dr. G. S. Gerhard and myself, twenty hours after death. Head only examined. Body in ice, and stiff.

"Skull-cap normal in thickness and firmness; somewhat adherent to dura mater, which seemed normal. Some subarachnoid effusion.

"All the veins on the surface of the brain were distended with blood, those on the right side particularly so. A good deal of serum flowed out as the membranes were divided, perhaps partly from the ventricles.

"Sections of the brain showed less than normal vascularity. The central portions of the hemispheres, especially the left, were very soft. The corpus callosum was entirely diffluent, and the fornix, choroid plexuses, and septum lucidum were scarcely traceable. All the ventricles were dilated with serum, and some granular deposits existed along the plexuses.

"On the base of the brain there was a good deal of effused lymph; a large mass existing in the interpeduncular space, on the front of the pons Varolii, and along down the medulla oblongata and spinal cord.

"In the fissure of Sylvius on either side, around the middle cerebral artery, a granulated mass of tuberculous deposit existed, probably interfering with the flow of blood through the vessel, and thus inducing the softening above noted. Smaller deposits of similar granulations existed in great abundance over the other portions of the base of the brain.

"The optic globes were not removed for examination, the father of the child being present.

"Dr. J. G. Richardson was kind enough to examine the deposits removed, and sent me the following report:

"'I find on microscopic examination that the "little sago-like masses" visible in the pia mater of the portions of brain you left with me on the 8th instant are *true miliary tubercles*, being seated in the tunica adventitia of the arterioles and smaller arteries, and made up of oval and obtusely angular cells (sometimes exhibiting endogenous cell formation), arranged in a delicate network, each of whose meshes generally includes but a single cellular element.'"

GLEANINGS FROM OUR EXCHANGES.

TREATMENT OF PARAPHIMOSIS.—M. Bardinet suggests the following simple mode of reducing a paraphimosis. He passes between the prepuce and corona a blunt lever—the blunt end of an ordinary hair-pin answers well—one being placed in the upper, another at some nearly corresponding place beneath. The fingers are then used in drawing forward the prepuce by a sort of screwing movement, the hair-pin or other blunt instrument, such as the handle of an ordinary teaspoon, acting as a lever to slide the prepuce over.

IMPORTANCE OF THE PURITY OF CHLORAL HYDRATE.—Dr. Oscar Liebreich has recently published a paper in the *Berliner Klinische Wochenschrift*, in which he calls attention to the important subject of the purity of chloral hydrate, and the effect which its deterioration may produce on the patient to whom it is administered, and on its reputation as a remedy. The case, he says, is different from that of such a substance as quinia, the adulteration of which will only reduce, but not pervert, the proper action of the drug. With chloral and other substances prepared by analogous chemical processes, the result of the manufacture may be the formation of compounds which, if administered, produce an altogether different result from that intended. The process of manufacture is one which requires great care; and it seems that it is at least difficult to insure the purity of chloral if made in large quantities. Liebig himself, who discovered it, never attempted to make more than a few grammes at once; and Dr. Liebreich was so convinced, when he brought it into notice as a medicinal agent, that purity was necessary for success, that the first supplies were made under his immediate superintendence. At present it is manufactured in various places, and the result is that in some parts of the continent, notably in Saxony and Switzerland, it has fallen into disrepute. Dr. Liebreich has made a collection of specimens of the drug used in cases where it has failed to produce its proper action, and possesses, he says, some horrible chemical compounds which he would not venture to give to a human being. He prefers the crystallized form of chloral hydrate, as the most stable. It may contain hydrochloric acid: this is no disadvantage if the proportion remain the same; but if it increase it indicates that the formation of dangerous compounds may be going on. Sometimes the hypnotic action is increased: this he attributes to the production of chlorine compounds, which are more readily changed into chloroform than chloral itself is. An acid reaction arising from the formation of trichloracetic acid does not show that the chloral is unfit for use, though it weakens its action. In pure chloral this action is limited, while impure chloral is liable to the constantly-increasing production of acid compounds—not trichloracetic acid—of a deleterious nature. Dr. Liebreich remarks that the German Pharmacopœia is in error in fixing the boiling-point of chloral hydrate at 95° Cent. (203° F.). This, he says, is correct for anhydrous chloral, but the boiling-point of chloral hydrate is not constant.—*Brit. Med. Jour.*, March 21, 1874.

GUARANA IN CHRONIC RHEUMATISM.—Mr. E. A. Rawson states (*Irish Hospital Gazette*, April 15, 1874) that when suffering severely from lumbago, and other remedies failing, he tried guarana as an experiment. He took fifteen grains in hot water with cream and sugar, and experienced entire relief from pain for twenty-four hours. When the lumbago returned, he took another dose, with the same result. "I gradually," he says, "increased the dose to forty grains, and took it regularly once a day for about a week. The lumbago disappeared. I gave up the guarana, and in a few days the pain in the back returned. A forty-grain dose removed it, and it did not return for several days afterwards. Now, whenever it does, I have my remedy at hand. During the last month I have experimented largely with guarana on a variety of patients, rich and poor. The results vary. When the pain is acute, coming on with sharp stings, guarana acts like magic; when it is of a dull, aching character, the drug is slower in its action, and several doses must be taken before any decided benefit can be perceived.

"I have come to the following conclusions, viz.: that whenever the fibrous envelopes of nerves, the aponeurotic sheath of muscles, the fasciæ or tendons, are the parts affected, guarana gives, if not instantaneous, at least very immediate relief, which will last from twelve to twenty-four hours; and I confidently expect that perseverance in the use of the drug, gradually increasing the dose up to forty grains, will entirely remove any of the above-mentioned kinds of rheumatism.

"Of the good effects of guarana on nervous hemicrania there is no doubt; and I trust it will prove in other hands as valuable against rheumatism as it has in mine."

TWO CASES OF ANÆSTHETIZATION DURING SLEEP.—Having read in the April number of your journal an article entitled, "Can a Person be Anæsthetized during Sleep?" it occurred to me that a brief report of two cases of successful chloroformization during sleep might prove interesting.

The first case was that of a little girl named Parsons, aged eight years. As a sequel to acute otitis media, the mastoid cells of one side became inflamed; and Dr. E. M. Curtis was invited to take charge of the little sufferer.

Deeming it expedient to operate for the evacuation of the pus as soon as convenient, we agreed to meet at nine o'clock of the following morning for this purpose. On our arrival, we learned that the patient had slept but little during the night, but was then sleeping sweetly. Chloroform was at once administered upon a four-by-six piece of surgeon's lint, held as near the child's mouth as possible without coming in actual contact. Not the slightest effort was made by the child to avoid the inhalation of the anæsthetic, and in a few moments she was well under its influence, and was immediately carried into an adjoining room and placed upon a lounge, where the doctor very soon completed the operation.

The child being still anæsthetized, the wound was dressed, and before she had fully gained consciousness we both left the room, having first given proper instructions to the parents. On making my evening visit, I was informed that my patient was not yet aware that she had undergone a severe surgical operation, or that either Dr. Curtis or myself had visited her on that day.

My second case occurred on the 15th inst., in the person of a little girl two and a half years old, named Drake, brought to me from Galena, Nevada, for the purpose of having a supernumerary toe removed from each of her feet. While waiting for the arrival of Dr. Nelson, who assisted me in the operation, the child fell asleep and was placed in the operating-chair. As soon as the doctor arrived, chloroform was administered in the manner already detailed in the former case, and with equal success, and the operation was soon completed without the occurrence of an unfavorable circumstance.

In the first case the condition of the child probably favored the ready induction of anæsthesia, while in the second, age alone could be supposed to have influenced the result.—*Dr. R. W. Cluness*, in *Pacific Med. and Surg. Jour.*

OPHTHALMOSCOPE IN THE DIAGNOSIS OF CEREBRAL TUMORS.—Dr. Fitzgerald publishes in the *Dublin Journal of Medical Sciences*, June, 1874, a communication on this subject, in which, after some preliminary remarks on the use of the ophthalmoscope in disease generally, he goes on to speak of the appearances presented by the optic nerve in cases of cerebral tumor. Von Graefe's description of the "stauungs papilla" is given in full. Following this, a case coming under Dr. Fitzgerald's observation is noted, and a chromo-lithograph given of the appearances presented in the retina. Dr. Fitzgerald then passes on to consider briefly the theories which have been put forward to account for the congested condition of the disk in cases of cerebral

tumor. After reviewing these, he remarks that an erroneous impression prevails in regard to Von Graefe's opinion of the diagnostic value of the stauungs papilla. Graefe did not regard this appearance as *absolutely* diagnostic of the presence of a cerebral tumor, but merely as the *expression* of increased intra-cranial pressure, and consequently whatever caused an increase of the pressure would also produce this swollen state of the disk.

To demonstrate the fact that this condition may be present in cases where there is no cerebral tumor, Dr. F. alludes to a drawing in his possession, taken from the retina of a patient suffering from meningitis, in which the appearances were quite characteristic. He concludes: "I am aware that an objection may here be urged, to the effect that if the same appearance can be produced by a cause other than tumor of the brain, such appearance is after all of very little practical value as a diagnostic sign. To this I would answer, that, apart from a most careful study of all the symptoms in any particular case, it can scarcely be looked upon as of any special diagnostic value; but that, on the other hand, due regard being paid to those symptoms, it must prove of invaluable assistance in forming a diagnosis."

Dr. Fitzgerald's article has been republished in pamphlet form by Fannin & Co., Dublin.

Galvano-Puncture in Aneurism (*Lancet*, July 18).—Dr. Anstie performed this operation recently at the Westminster Hospital in a case of abdominal aneurism, supposed to be connected with the cœliac axis. It had been treated for some time by means of subcutaneous injections of ergotin, after Langenbeck's method; thirty grains, altogether, having been injected, at intervals, during two days. This treatment having proved unavailing, galvano-puncture was performed, as follows. Two needles, insulated with vulcanite up to three-quarters of an inch of the points, were introduced into the aneurism at the most prominent part, and were then connected with the positive pole of the battery, which consisted at first of twelve Bunsen's cells, subsequently reduced to eight. The current was kept up for thirty minutes, during which time the patient suffered acute pain. Both needles were then cut short and left in the aneurism for twenty-three hours, when they were removed on account of redness and discoloration of the skin. The day after the operation the aneurism was firmer, and the pulsation appreciably diminished, the patient being quiet and composed. A subcutaneous injection of a third of a grain of morphia was given on the night of the operation, and another injection on the next morning. When last heard from, the patient continued in a very satisfactory state.

Glass Syringes in the Vagina.—Sir: It is very creditable to get broken glass syringes out of the vagina without damage to the patient or to the practitioner, but why did they allow their patients to use such instruments? Were it not that you have lately recorded two cases in which a glass syringe had broken in the vagina, and a third case in which death followed this accident,—were it not that I am occasionally consulted by patients who have been told to inject a weak solution of acetate of lead or of alum into the vagina, by means of a glass syringe, to cure uterine ulceration,—I should not think it worth while to enter a protest against the recommending of such instruments to patients. The danger attending the use of glass syringes for vaginal injections is evident, and their utter uselessness is no less clear; for, while the injection of two or three ounces of a solution of acetate of lead or alum can have little effect on a diseased womb, much good may be done by the injection of one or two pints of a similar solution, by means of one of the india-rubber siphon syringes sold by all chemists. A glass syringe should only be used by the practitioner himself, when he wants to act on the vagina by a strong solution of nitrate of silver, or some similarly potent medicine.

I am, etc.,

Edward J. Tilt.

—*British Medical Journal*, July 18, 1874.

Acne Rosacea.—Dr. W. B. Cheadle (*Practitioner*, July) takes Hebra's view of the pathology of this affection, in opposition to that of Wilson and Tilbury Fox. He does not regard it as an acne, the sebaceous glands being neither primarily affected nor in many instances involved at all. The essential morbid change does not consist in any inflammatory process, but in a new formation of vascular and connective tissues, the changes in the sebaceous glands being secondary or accidental. The conditions associated with its production are usually excessive indulgence in alcoholic drinks, gastric disorder, uterine derangements, and prolonged or frequent exposure of the face to heat or cold.

The manner in which these causes produce the particular effects observed is, Dr. C. thinks, by long-continued hyperæmia brought about by reflex action upon the local vascular system. An example of transient reflex action is seen in flushing of the face after a hearty meal or alcoholic indulgence; and it is this same effect persistently exercised which brings about morbid changes. Of course, as there is no true local inflammation, local remedies are generally useless. Stimulating applications—lotions of the perchloride of mercury, of sulphur, or of both, and applications of the acid nitrate of mercury—are the only local remedies which Dr. C. has found advantageous. Internal remedies which relieve the distention of vessels, saline purgatives for instance, are of use. Arguing from the pathology of the eruption, Dr. C. was led to apply faradization in several cases, and with the most encouraging results.

Tape-Worm in an Infant.—Dr. Dawosky relates a case of an infant six months old suffering from tape-worm. "After satisfying myself of the presence of the parasite," he writes, "I ordered a small dose of castor-oil daily for the child, and at the end of a week had the satisfaction of seeing the last piece of the worm, with the head attached, in the evacuations. The question now arises, how did the ovum of the tape-worm obtain ingress into the stomach of this child, which had only been nourished at the breast of the mother? Both parents were, as stated, in excellent health, and in neither of them could any traces of tape-worm be discovered. Dr. Weisse of St. Petersburg, the earnest defender and advocate of the meat-cure, states that he had in many instances observed tape-worm in children after the use of raw meat, and relates the case of a child eighteen months old. Yet in all these instances the source of the parasite could be traced. But how did the infant of six months, that had no nourishment but the breast of its mother, get the tape-worm?"—*Memorabilien*, April, 1874.—*Baltimore Physician and Surgeon.*

Ununited Fracture of the Thigh treated by the Injection of Ammonia.—Bourguet has reported a case in which he has employed this treatment with success. A fracture of the diaphysis of the femur had not united after a period of five months. At this time ten drops of a solution of ammonia, in the proportion of one to three, were injected into the thigh, immediately about the extremity of the upper fragment. Four weeks later, twenty drops were injected about the lower fragment. Three days later a third was made between the fragments, and a week later a fourth of twenty drops, containing equal parts of ammonia and water. Within the next five weeks four injections were made with a solution of iodine and iodide of potassium. The

leg lay in a water-glass splint. The phosphate of calcium was given internally. Six months after the first injection the consolidation was complete and the callus very extensive. This is the second case that Bourguet has treated successfully in this way.—*Allg. Med. Central Ztg.*, 39, 1874.—*Medical Record.*

EXPLOSIVE MEDICINES.—Young medical men are warned (*Revue de Thérapie*, 1873) against combining in their prescriptions certain agents which in case of the development of any acid, or even if exposed to a moderately high temperature, are liable to *go off*. Among these dangerous formulæ may be cited a prescription for pills not unfrequently employed in England, composed of nitrate of silver, extract of nux vomica, muriate of morphia, conserve of roses, and extract of gentian, which, when affected by the development of heat, will speedily explode. In like manner, pills made of nitrate of silver and creasote, or carbolic acid, will very soon generate heat sufficient to induce spontaneous combustion. Still more surprising to the occupants of the sick-chamber is the energetic explosion (suggestive of nitro-glycerin) arising from the pills or mixtures of which oxymuriate of potash forms an ingredient.—*Clinic.*

SUDDEN DEATH FROM EMBOLISM OF THE PULMONARY ARTERY AFTER INFLAMMATION OF VARICOSE VEINS (*The Edinburgh Medical Journal*, May, 1874).—M. Chabenat gives the following conclusions on this important subject. 1. Inflammation of varicose veins of the adhesive type predisposes to embolism of the pulmonary artery, and, as a consequence, to sudden death. 2. The clot heaps up, and is carried on by the current of blood when the patient is in process of cure: it is generally the result of an effort. 3. Death is due in general to the size of the clot, which completely blocks up the pulmonary artery or one of its large branches. 4. The patient dies almost always without asphyxia, rarely by fainting. 5. As yet, we have no means by which to prevent the migration of the clots: it is therefore necessary as far as possible to prevent them from breaking up.

TETANUS FOLLOWING ABORTION (*The Medical Press and Circular*, June 10, 1874).—Mr. M. A. Boyd reports the case of a primipara, thin, anæmic, and nervous, in whom abortion was produced during the third month, by a fall. The hemorrhage was easily controlled, and the remains of the ovum came away entirely on the third day. She did well until the morning of the sixth day, when trismus made its appearance, together with the characteristic *risus sardonicus;* opisthotonos followed on the next morning, with frequent and painful spasms, and her condition steadily grew worse until her death, which occurred six days after the commencement of the tetanic symptoms. She was treated with large doses of chloral,—nearly an ounce every twenty-four hours,—and with nutrients and stimulants. The tetanus was probably due to irritation of the brain, from deprivation of blood in an already anæmic subject.

BELLADONNA IN GOITRE (*Ibid.*).—Dr. R. T. Smith reports two cases of exophthalmic goitre, which were relieved and almost cured by the free administration of tincture of belladonna, after the failure of nearly all other known remedies. He considers it possible that the relief was given primarily through the heart, the drug acting sedatively thereon.

INFLUENCE OF ALIMENTATION ON THE PROPORTION OF WHITE GLOBULES IN THE BLOOD (*Le Progrès Méd.*, June 20).—Dr. Wilbouchevitch had under his observation for some time a man who suffered from a stricture of the œsophagus. When first seen, the patient had lived for some time on a purely vegetable diet, but as he grew better he was gradually enabled to eat more and more nitrogenous food. By carefully enumerating the corpuscles from time to time and comparing the results with those elsewhere obtained, Dr. W. has arrived at the conclusion that a purely vegetable diet has an evident influence in largely increasing the relative proportion of white corpuscles.

ARGYRIA (*Le Progrès Méd.*, June 13).—M. Duguet presented at a recent meeting of the Société de Biologie a patient whose face, chest, and arms presented a silver-gray tint, due to the absorption of nitrate of silver. The other parts of the body were free from discoloration, with the exception of the velum palati and pharynx, which were quite dark. The absorption was supposed to have followed repeated cauterizations of the pharynx with crayons of argenti nitrat., which had been practised some years previously.

URETHRAL FEVER (*The Practitioner*, May, 1874).—Dr. Leopold Dittel considers urethral fever a peculiar affection, caused by the reaction of the urinary organs and the sympathy of the system generally with the local lesion. He distinguishes three forms: 1, the nervous form, with pure reflex reaction; 2, fever caused by lesion of the urinary tube; and 3, the so-called morbid form, which is associated with disease of the kidneys and their pelves, and often ends fatally.

PHYSIOLOGICAL ACTION OF CHLORAL.—M. Byasson thinks that the longer duration of action of chloral compared with that of chloroform is due to the slowness of the chemical action, and that the difference in the physiological phenomena is explained by the intervention of formic acid produced at the same time as the chloroform, and acting under special condition.—*Acad. des Sciences.*

MISCELLANY.

AT a meeting of the Commissioners of Charities and Correction in New York, held during the last week in July, a resolution was introduced and passed reorganizing the Medical Board of Bellevue Hospital. This Board consists of nineteen members, twelve of whom have been removed from their positions by the terms of the resolution referred to. The names of these gentlemen are as follows: Drs. Isaac E. Taylor, Lewis A. Sayre, John J. Crane, John W. S. Gouley, B. Fordyce Barker, Frank H. Hamilton, Alexander R. Mott, Thomas M. Markoe, Austin Flint, Jr., William M. Polk, William T. Lusk, and E. G. Janeway. Of these, Drs. Crane, Sayre, and Taylor have been members of the Board for twenty years, and the majority of the others from five to fifteen years.

One would naturally suppose that the Commissioners had been influenced only by the most weighty reasons in taking such unusual and extraordinary action in regard to the hospital appointments. Thus far, however, no reason whatever has been assigned by them for this change. This action on the part of the Commissioners will seriously cripple the corps of instructors at the Bellevue Hospital Medical College, and, if persisted in, may result in the destruction of the school. It is darkly intimated that professional jealousies are at the bottom of this movement, and that the brilliant and rapid success of this school has made it altogether too dangerous a rival to older seats of medical learn-